

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

**DOCKET NO. FRA-2009-0044
EMERGENCY ESCAPE BREATHING APPARATUS
SUPPLEMENTAL NOTICE OF PROPOSED RULEMAKING**

**JOINT COMMENT SUBMITTED BY
THE ASSOCIATION OF AMERICAN RAILROADS AND THE
AMERICAN SHORT LINE AND REGIONAL RAILROAD ASSOCIATION**

The Association of American Railroads (AAR) and American Short Line and Regional Railroad Association (ASLRRA), on behalf of themselves and their member railroads, submit the following comments in response to the Federal Railroad Administration's (FRA's) March 22, 2023, Supplemental Notice of Proposed Rulemaking (SNPRM) proposing to amend 49 CFR part 227 to include requirements for the provision of emergency escape breathing apparatus (EEBA) when there are railroad personnel occupying a locomotive cab of a freight train transporting a hazardous material that would pose an inhalation hazard in the event of release during an accident.

Statement of Interest

AAR is a non-profit trade association whose membership includes freight railroads that operate 83% of the line-haul mileage, employ 95% of the workers, and account for 97% of the freight revenues of all railroads in the United States; and passenger railroads that operate intercity passenger trains and provide commuter rail service.

ASLRRA is a non-profit trade association representing the interests of the nation's approximately 600 Class II and Class III (short line) railroads. Short lines operate 47,500 miles of track, or approximately 29% of the national freight network, and employ approximately

18,000 people, thereby playing a vital role in the railroad industry's strong safety record. The overwhelming majority of short line railroads are considered small businesses by both the Small Business Administration (SBA) and FRA's Policy Statement Concerning Small Entities.¹ These small businesses succeed in a competitive environment because of their flexibility, cost control, and customer-driven service.

The members of the AAR and ASLRRA will be directly affected by the proposed changes because they will be required to provide atmosphere-supplying EEBA's to a substantial portion of their workforce, track and inspect EEBA's on a daily basis, and provide periodic training on EEBA usage in order to comply with the provisions if the SNPRM is finalized.

Introduction

After more than a decade of dormancy, FRA has decided to revive the Emergency Escape Breathing Apparatus rulemaking by publishing an SNPRM in the Federal Register.² The SNPRM proposes minor changes from the NPRM published in October 2010 following passage of the Rail Safety Improvement Act of 2008 (RSIA), supplements the record by responding to comments on the NPRM, and updates the economic analysis of the initial NPRM.^{3, 4} However, what the SNPRM does not do, and what FRA fails to address, are the fatal deficiencies in the initial NPRM. As noted in AAR's December 6, 2010, Comment to the original NPRM, section 413 of the RSIA may mandate EEBA's for crewmembers, but in implementing the statutory provision, FRA must exercise its discretion carefully to minimize the negative cost impacts of

¹ See 13 C.F.R. § 121.201 and North American Industry Classification System code 482112, "Short Line Railroad," and 49 C.F.R. Part 209, Appendix C.

² 88 Fed. Reg. 17302 (Mar. 22, 2023).

³ 75 Fed. Reg. 61386 (Oct. 5, 2010).

⁴ Public Law 110-432, Div. A, 122 Stat. 4848, October 16, 2008 (49 U.S.C. 20166).

the proposed rule.⁵ The SNPRM does not reasonably address the disparity between the minimal anticipated benefits and the exorbitant proposed cost impacts that were first identified in the NPRM. Therefore, FRA lacks a reasoned basis for finalizing the SNPRM. Specifically, the SNPRM fails to present a safety justification for the proposed rule; it does not adequately consider the implications of an EEBA management program and propose reasonable steps to minimize the burdens in a manner that is consistent with the statute; and the SNPRM exceeds the statutory authority in section 413 of the RSIA by proposing requirements that are not required by the statute.

The proposed rule lacks a compelling safety justification.

At the time that FRA published the NPRM, it acknowledged that the proposed rule would likely result in limited benefits while requiring railroads to expend substantial resources outfitting each person who occupied a locomotive cab of a freight train with an appropriate atmosphere-supplying EEBA if the train was transporting a hazardous material that poses an inhalation hazard in the event of release. FRA estimated just \$13.5 million in potential benefits over the ten-year period of analysis. This was balanced against estimated costs ranging from \$73.9 million to \$81.9 million. AAR's comment to the NPRM questioned the accuracy of FRA's benefits estimate because of questions about the effective usage rate of EEBA's in the event of a chemical release. Those questions continue to exist, as FRA provides no data, and the SNPRM does not directly address, effective usage rates. However, AAR noted, assuming *arguendo*, that the benefits estimate was correct, the highly conservative cost estimates of the proposed rule far exceeded the benefits.

⁵ AAR readopts and reasserts the discussion and arguments in its previous comment. See <https://www.regulations.gov/comment/FRA-2009-0044-0012>. For ease of reference, AAR attaches the earlier comment as Appendix A to its current comment.

FRA’s benefits analysis in support of the SNPRM is based on the potential safety impact of EEBA deployment on trains transporting hazardous materials that pose an inhalation hazard if released, but the passage of time has not strengthened the safety justification for the rulemaking. Railroads are safer now than they were when the RSIA was passed. Since 2008, railroads have made significant investments in safety, which have resulted in a 23 percent decrease in the mainline accident rate (i.e., including derailments, collisions, fires, explosions, and obstructions). Similarly, hazmat accident rates have declined by 55 percent since 2008, with railroads reaching an all-time low in accident rates in 2022. Moreover, operational changes related to the implementation of Positive Train Control, speed restrictions that are required for trains transporting poisonous-inhalation-hazard (PIH) materials, and improvements to tank cars have substantially reduced the likelihood of a PIH material release.^{6, 7}

In the SNPRM, FRA adjusts its 10-year benefit estimate downward from \$13.5 million to \$63,720 (undiscounted). This amounts to an annualized societal benefit estimate of only \$6,138 (7% discount rate). However, even with the substantially reduced number, FRA still overstates the estimated benefits because its accident/incident history is inaccurate. The accident/incident history that FRA relies on to support the rulemaking is extremely limited. FRA cites only two incidents, one in New Jersey in 2012 and one in Texas in 2014, that occurred during the period of the regulatory evaluation (2012-2021). AAR has analyzed the Texas incident in 2014 and found no evidence to support FRA’s assumption that the employee was exposed to PIH material

⁶ “Positive Train Control Systems,” 75 Fed. Reg. 2598 (Jan. 25, 2010).

⁷ “Improving the Safety of Railroad Tank Car Transportation of Hazardous Materials (HM-246),” 74 Fed. Reg. 1769 (Jan. 13, 2009) (mandating mandates commodity-specific improvements in safety features and design standards for newly manufactured DOT specification tank cars, including a 50 mph speed restriction for loaded rail tank cars transporting PIH materials; an improved top fittings performance standard; an allowance to increase the gross weight of tank cars that meet the enhanced standards; and adoption of the industry standard for normalized steel in certain tank cars); and “Adoption of Miscellaneous Petitions to Reduce Regulatory Burdens (HM-219C),” 85 Fed. Reg. 75680 (Nov. 25, 2020) (phasing out tank cars that are not compliant with HM-246).

(or an asphyxiant). According to the incident report form filed with the Pipeline and Hazardous Materials Safety Administration (PHMSA) the only release in the incident involved shrink-wrapped batteries stacked on pallets in a box car. When the box car overturned several batteries broke resulting in approximately 50 gallons of battery acid spilling inside the box car and less than 2 gallons released on the ground. Battery acid is not a PIH material (or an asphyxiant), and there is no evidence that an employee was exposed to PIH material (or an asphyxiant). FRA's reliance on this 2014 incident is simply not supported by the facts.

Additionally, in the SNPRM FRA acknowledges that “FRA's Positive Train Control rule and PHMSA's Enhanced Tank Car Standards rule ha[ve] further reduced the risk of future injuries and deaths from PIH releases.” However, the regulatory analysis does not attempt to quantify the extent to which those regulations have driven down the risks associated with transporting PIH materials by rail since the two rulemakings became effective in 2010 and 2009, respectively.

FRA Fails to Fully Account for Costs Associated with EEBA Program Management.

While the SNPRM does not mandate a particular method for railroads to use in providing EEBA's to employees, it does identify options that fall into three broad categories: 1) assign the EEBA's to each employee; 2) pre-mount the EEBA's in assigned locomotives; and 3) treat EEBA's as “pool items” that are issued to employees at the start of a shift and retrieved at the end of the shift. Each of these alternatives would require substantial program management costs. FRA's economic analysis fails to account for any of the costs of managing these programs, except for the limited purposes of installation and recordkeeping. For example, FRA does not fully assess the cost of adding personnel to manage the EEBA program even though the EEBA program would be implemented across an industry that includes—based on FRA's estimates—

approximately 24,000 locomotives and 60,000 train and engine (T&E) service employees. Any such broad-based program will require extra personnel to manage the program, which would include tasks such as procuring the initial allotment of EEBA, developing and implementing testing and inspection protocols for devices, conducting scrap planning (i.e., tracking replacement needs based on age), tracking pilferage or damage, anticipating new EEBA purchases and ordering replacement EEBA as needed, assessing employee turnover, identifying EEBA reallocation needs, tracking wear and tear on mounting systems, and developing and implementing training for EEBA usage and management. Additionally, railroads will need to plan for EEBA fit testing issues, accommodation issues for employees that cannot wear EEBA, the development of new technology resources for tracking EEBA, interoperability needs between rail carriers, and a variety of other costs that FRA fails to address.⁸

Moreover, while FRA identified EEBA pooling as the lowest cost alternative, the EEBA pooling alternative almost certainly would have the highest program management burdens. The preamble of the SNPRM seems to recognize some of the potential program management burdens but the economic analysis does not adequately account for those burdens. At a minimum, railroads would need extra personnel to facilitate when EEBA are checked out and returned, manage a system that regularly has employees report to duty at one location and go off duty at another location, and run a logistical operation to transport EEBA to multiple locations based on local need and supply. Additionally, the equipment pooling option would require railroads to contend with space issues in yards for storage, including building or purchasing storage areas

⁸ The SNPRM would require Class I railroads to comply with the provisions of the rule within 12 months of the effective date of the final rule, which gives railroads very little time to set up a program and purchase the large quantities of EEBA that would be required to comply with the proposed rule. Distribution problems continue to exist, and it is unclear if manufacturers would be able to support such a large-scale implementation (FRA estimates 24,000 locomotives and 60,000 T&E employees) within such a short timeframe.

that will allow railroads to effectively store, maintain, and manage the distribution of EEBA's to railroad personnel as needed. None of these factors are accounted for in FRA's cost assessment.

**The Proposed Rule Diverts Resources to Costly Measures That
Are Not Supported by the Benefits.**

As outlined above, the estimated costs of the SNPRM exceed the expected benefits by a substantial margin. According to FRA's highly conservative estimates, the 10-year estimated costs of the rulemaking range from \$33,527,842 if railroads were to pursue the equipment pooling option for providing EEBA's to \$92,006,767 if railroads use the employee assignment option to \$106,793,570 if railroads use the locomotive assignment option. AAR believes that these cost estimates are understated (just as FRA's benefits estimates are overstated). However, even using FRA's estimates, the disparity between the estimated costs and benefits is enormous. The estimated costs exceed the estimated benefits by nearly 530:1 if railroads use FRA's "low-cost" alternative of equipment pooling. If railroads were to choose FRA's "middle-cost" option of assigning EEBA's to employees as part of their personal equipment, then the estimated costs would exceed the estimated benefits by nearly 1455:1. If railroads were to choose FRA's "high-cost" option of equipping locomotives with sufficient EEBA's to transport PIH materials, then the estimated costs would exceed the estimated benefits by nearly 1690:1. The variation in cost-benefit ratios is because the estimated benefits remain remarkably low—and unchanged—regardless of the method of providing EEBA's. If FRA did an accurate valuation that reduced the overall safety benefits based on the existing data and factored in all the costs of implementing an EEBA program, the ratio of costs to benefits would be even higher.

While FRA contends that the proposed rule benefits safety, these numbers do not support FRA's contention. It is important to note that there is an opportunity cost to these expenditures, meaning that a dollar spent on providing an EEBA is a dollar not spent on another safety

measure that has a greater relative safety impact. AAR notes that the costs of the SNPRM would be in addition to the billions of dollars that the railroad industry has invested (and continues to invest) in PTC, which designed to prevent train-to-train collisions, over-speed derailments, incursions into established work zones, and movements of trains through switches left in the wrong position. Given this context, FRA should be encouraging railroads to spend money in areas where there is the greatest safety impact, but this rulemaking does the opposite by diverting funds to the least efficient safety use.

The EEBA Requirements Should Not Apply to Asphyxiants.

The SNPRM proposes to treat asphyxiants as outside the scope of the EEBA requirements and require EEBA's only for trains that are transporting PIH materials. While AAR cannot support the SNPRM as drafted given the lack of safety justification and FRA's decision to regulate in a manner that exceeds the statutory mandate, AAR does note that this proposed revision addresses one of AAR's concerns with the NPRM, which would have required railroads to provide EEBA's for trains that are transporting PIH materials as well as asphyxiants. There is no evidence that Congress intended to require the provision of EEBA's on trains with asphyxiants. The statutory text does not mention or otherwise refer to asphyxiants, and the genesis of section 413 of the RSIA was the accidents in Macdona, TX, and Graniteville, SC. Both of these accidents involved PIH materials. There was no record of any rail-related fatality that was attributable to the inhalation of non-PIH substances when the statute was passed in 2008, and there remains no record of any such fatality in 2023. Given this history and the text of the statute, FRA has rightly limited the proposed requirements in the SNPRM to exclude asphyxiants.

The RSIA Does Not Mandate Discretionary Actions in the Proposed Rule.

AAR recognizes that section 413 of the RSIA mandates that FRA prescribe regulations requiring railroads to provide an EEBA for all crewmembers in locomotive cabs on freight trains carrying hazardous materials that would pose an inhalation hazard in the event of a release, to provide convenient storage in the locomotive to allow crewmembers to don the EEBA quickly, to maintain EEBA's in proper working condition, and to provide crewmembers with appropriate training. However, the SNPRM does not limit its proposals to these specific requirements.

FRA has instead exercised discretion in a way that goes beyond the limited statutory authority provided by Congress. In addition to the matters discussed above, FRA does not limit the rulemaking to crewmembers. There are limited places in locomotives to store EEBA's, and FRA's proposal that all persons in the locomotive cab of a train be provided an EEBA would exacerbate the situation because railroads will be required to account for as many as five locomotive passengers in the cab (to accommodate ride alongs, deadheads, testing, and training).

Additionally, FRA exercises broad discretion in proposing to implement overly burdensome inspection and recordkeeping requirements related to pre-trip inspections that are unnecessary to ensure that EEBA's are in proper working condition. In its 2010 comment on the NPRM, AAR suggested several changes to proposed § 227.207 and proposed § 227.215, and AAR reiterates those comments here. These changes recommended that FRA rely on periodic testing, rather than pre-trip inspections, to ensure that EEBA's were maintained in proper working condition, as required by the RSIA, and that FRA eliminate unnecessary and overly burdensome recordkeeping requirements related to such pre-trip inspections. AAR continues to recommend that inspection and recordkeeping requirements should be consistent with manufacturer instructions. Similarly, FRA exercises broad discretion in proposed § 227.203(c), which requires

railroads to document the adequacy of the EEBA. As AAR noted in its 2010 comment to the NPRM, the provision serves no safety purpose because adequacy is determined under the proposed regulation by selecting a device that either is certified by NIOSH (or meets the criteria established by certain defined industry standard organizations).

The training regime proposed by FRA also goes beyond what the statutory text requires. For example, there is simply no requirement in the statutory text and no functional safety rationale for FRA to require all railroad employees to be able to demonstrate knowledge of EEBA selection criteria, as proposed in §227.209(2)(b)(6). Given the extreme imbalance between the estimated costs and the estimated benefits in the SNPRM, it is incumbent upon FRA to re-examine the entire rulemaking to ensure that it carefully follows the statutory text before it is finalized. A failure to do so would render FRA's actions arbitrary and capricious.

The Proposed Rule Burdens Small Railroads

FRA estimates that 110 Class III railroads would be subject to the SNPRM's requirements and that the average annual cost of compliance per Class III railroad is \$1,358.⁹ While the cost of each individual EEBA may be modest, ongoing costs for inspection, maintenance, replacement and enforcement penalties for the inevitable shortcomings associated with them will result in a permanent new ongoing expenditure stream for small railroads with no gain in safety or efficiency to offset them. Using the methodology provided in the Regulatory Impact Analysis ("RIA") as a baseline, ASLRRRA recalculated the likely costs of this rulemaking over a 10-year timeframe for Class II and III railroads. The RIA utilizes unreasonable assumptions largely modeled on small railroads being able to scale down their usage of EEBA's based on criteria that better fit the operations of Class I carriers. To produce a more accurate

⁹ 88 Fed. Reg. at 17325.

assessment of the cost structure small railroads would face to comply with the proposed rule, ASLRRRA reran the model described in the RIA with these changes:

- Small railroads are likely to focus the purchase of EEBA's based on crew terminals and number of customers. In its most cost-effective option (#3 – Equipment Pooling), the RIA estimated that the count of EEBA's to be provided would be equivalent to 10% of a railroad's locomotive count. Unlike Class Is, small railroads are far more likely to base their operations and locomotives out of a limited number of terminals, and any of those terminals serving customers shipping PIH materials would require EEBA's to be available. Since service issues with EEBA's could result in the shutdown of a small railroad terminal, the revised model also accounts for the need for backup equipment. The combination of these factors makes it clear that small railroads will need to acquire a proportionally higher number of EEBA's relative to their PIH traffic to comply with the proposed regulation compared to Class I carriers.
- Small railroads will likely face higher costs than estimated and have limited options to benefit from bulk orders. In the RIA, FRA claims that each respirator will cost between \$800 and \$1,200, with railroads likely able to obtain a rate of \$1,000 and a bulk discount rate of \$850 per respirator.¹⁰ Railroads will also need to purchase brackets and lockers for the EEBA's. Small business railroads, many of whom would need to purchase only a handful of respirators each, are unable to benefit from bulk discount rates. They simply do not have the buying power of larger entities. Furthermore, according to market research, short line railroads

¹⁰ RIA at 9.

should expect to pay approximately 17% more than the prices provided in the RIA.¹¹

- EEBAs will require regular maintenance to function and meet regulatory requirements. While the RIA does assume a 10-year lifespan for EEBAs, there are manufacturer-prescribed annual inspection and service timelines within that lifespan necessary to ensure proper EEBA function. In ASLRRA's revised model, costs associated with meeting the publicly available service requirements for the Scott ELSA model were included.¹²
- Training costs will likely be much higher than those quoted in the SNPRM for small railroads. While the RIA does not describe the methodology for calculating training costs specifically for Class III railroads, ASLRRA's analysis based on the industry-wide model provided combined with employee counts sourced from ASLRRA¹³ and the Bureau of Labor Statistics, suggest that employee training costs will be much higher for Class IIIs than described in the SNPRM.

The revised analysis at the same basic conclusion as the RIA that a pooled approach is the most cost-effective option for small railroads to comply with the proposed rule. However, the overall cost levels were significantly higher. Over the first 10 years, ASLRRA expects the total compliance present costs (at 7%) to be borne by Class II and III railroads at over \$6.6 million, or over \$945 thousand on an annualized basis. For just Class III railroads, ASLRRA projects total present costs (at 7%) to amount to almost \$4.9 million, with the individual

¹¹ For EEBAs, *see, e.g.*, Tnasafety.com, industrialsafetyproducts.com, Grainger.com, and Supplyapp.com. For the lockers, *see, e.g.*, Thomassci.com, Source4industries.com, and Homedepot.com.

¹² *See* <https://cadmus.co.uk/mwdownloads/download/link/id/891/>

¹³ 2017 ASLRRA Facts and Figures

annualized cost to each of the 110 impacted railroads estimated to be \$6,333 per year, or more than four times the cost estimated in the SNPRM.

Small railroads have little leverage to pass the costs on to customers because the majority of small railroads have no pricing power. Most operate under fixed handling fee contracts with Class I carriers. Therefore, if they cannot pass these new regulatory costs on to customers, they typically must reduce their expenditures somewhere else to pay for new regulatory requirements. Capital budgets for track maintenance and infrastructure improvements are the only place to find funding, and so small railroads will be forced to defer track maintenance in order to fund this regulatory mandate that will have virtually no beneficial impact on safety to small business railroads.

In response to the 2010 NPRM, ASLRRRA commented that FRA should exempt Class II and Class III railroads from EEBA requirements. In this SNPRM, FRA refuses to create any carve-outs for small railroads, claiming that the agency is constrained by the statutory language.¹⁴ FRA should exercise its discretion, in this particular instance, and provide a “de minimis” exception for railroad operations, similar to what the agency provided for the positive train control requirements.¹⁵ Given the improvements to tank cars since 2008, coupled with the minimal risk presented by operations at low speeds, such an exception is reasonable and justified.

Additionally, FRA should provide additional compliance time for Class II and Class III railroads. Section 227.217 proposes a 12-month compliance date for Class II railroads, which is the same as the date proposed for Class I railroads, and an 18-month compliance date for Class III railroads. In the 2010 NPRM, FRA proposed a longer compliance timeline; Class I railroads

¹⁴ 88 Fed. Reg. at 17311.

¹⁵ 49 CFR § 236.1005(b)(4)(iii).

were given 24 months to comply, Class II railroads were given 30 months to comply, and Class III railroads were given 36 months to comply.¹⁶ In the earlier NPRM stated, “FRA recognizes that it will take time to procure EEBAs, instruct employees on their use, and outfit locomotives with the appropriate equipment to carry the devices. FRA envisions staggering the compliance dates based on the size of the railroad, with larger railroads having to comply earlier.”¹⁷ This logic holds true today. In the SNPRM, FRA references the prior proposed compliance timeline, but does not explain why a shorter timeline is appropriate.¹⁸ In addition to the time to the necessary time for procurement, instruction and outfitting of locomotives, the original timeline is more appropriate for Class II and Class III railroads, who often incur a backlog in industry production of newly required equipment.

Although the SNPRM proposes three methods of compliance and suggests that railroads can reduce their costs by using an equipment pooling method, this method would not reduce the compliance cost for a small entity that might only have a small number of locomotives and employees. Further, the training and recordkeeping requirements are consistent, no matter the size of the railroad.

Given the inability of short lines to benefit from bulk purchasing, coupled with the lack of relief provided by the equipment pooling proposal, FRA should, at the very least, increase the compliance period for short line railroads to the original proposed 30- and 36-month time periods as presented in the 2010 NPRM.

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¹⁶ 75 Fed. Reg. at 61405.

¹⁷ Id. at 61397.

¹⁸ 88 Fed. Reg. at 17323.

Thank you for your consideration of these comments.

Respectfully submitted,



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